

## CLAIMS

What is claimed is:

1. A small four-stroke gasoline engine with oil mist lubrication comprising:  
an upper case body 3 and a lower case body 4, a crankshaft assembly 1, a piston assembly 8, a cylinder head assembly 5, a cylinder head cover 6 and a lubrication oil way of engine, and the lubrication oil way of engine includes a crankshaft chamber B, a camshaft chamber C, an upper rocker arm chamber D and a condensation chamber E, and the camshaft chamber C is connected to the upper rocker arm chamber D via a tappet cavity 13, and the upper rocker arm chamber D communicates with the condensation chamber E, wherein an oil mist chamber A is formed by an upper case body 3 and a lower case body 4 on one side of the crankshaft chamber B, and the bottom of the oil mist chamber A communicates with the crankshaft chamber B, an oil splash impeller 2 is fixed onto the crankshaft which extends into the oil mist chamber A, an oil way 12 is provided on the upper case body 3 which is in between the oil mist chamber A and the camshaft chamber C, an oil return way 15 is provided on a cylinder head assembly 5, an oil return way 14 is provided on the upper case body 3, and the upper interface of the oil return way 15 communicates with the upper rocker arm chamber D, and its lower interface is connected to the oil return way 14, and the lower interface of the oil return way 14 communicates with the crankshaft chamber B.
2. The small four-stroke gasoline engine with oil mist lubrication as in Claim 1, wherein a reed valve 7 is provided at the interface of cylinder head assembly 5 between the oil return way 15 and the oil return way 14.
3. The small four-stroke gasoline engine with oil mist lubrication as in Claim 2, wherein a spacing plate 11 is provided on the reed valve 7.